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EXAMINER

NGUYEN, TU X

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/493,487

Applicant(s)

SHARP ET AL.

Examiner

Tu X Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### **Drawings**

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

All reference characters in Fig. 1-11.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### **Specification**

3. The disclosure is objected to because of the following informalities:

On page 5 line 19, "mechamism" should be replaced with --mechanism--.

On page 9 line 27, "advantegous" should be replaced with --advantageous--.

"advangeous" should be replaced with --advantageous-- congruently.

"determing" should be replaced with --determining-- congruently.

"handovershould" should be replaced with --handover should-- congruently.

Appropriate correction is required.

### **Claim Rejections - 35 USC § 112**

4. The following is a quotation of the second paragraph of 35 U. S. C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2 recites the limitation "the access systems" in line 4. There is insufficient antecedent basis for this limitation in the claim.

**Claim Rejections - 35 USC § 102**

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 37 1 (c) of this title before the invention thereof by the applicant for patent.

7. Claims 1-3, 6, 9-25, 28, 30 and 38, are rejected under 35 U.S.C. 102(e) as being anticipated by Byrne (US 5,737,703).

Referring to claim 1, Byrne discloses a communication system comprising:

at least two different access networks, wherein a first access network is capable of handling a first number of communications between a mobile user equipment and the first access network, and wherein a second access network is capable of handling a second number of communications between the mobile user equipment and the second access network (see col.3 lines 29-47), and wherein at least one of the mobile user equipment and the communication system contain at least one means for making at least one decision which communication or communications are handed over in the case that the mobile user equipment network and the second moves between the first access network and in that the at least one of the mobile user equipment and the communication system further contain at least one means for executing the at least one decision (see col.10 lines 44-46).

Regarding to claims 10 and 15, Byrne discloses method for managing a communication system, with at least two different access networks, wherein a first

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access network is capable of handling a first number of communications between a mobile user equipment and the first access network, and wherein a second access network is capable of handling a second number of communications between the mobile user equipment and the second access network (see col.3 lines 29-47), said method comprising the steps of:

evaluating if a handover from the first access network to the second access network should be effected (see col.3 lines 52-55); and

selecting, in the case that the handover is necessary, which communication or communications are handed over (see col.3 lines 56-66).

Regarding to claims 2-3, 6, 9, 11 and 19, the examiner interprets the access systems as the access network. Bynrne discloses a communication system comprising two different networks DECT and GSM (see col.6 lines 44-47). One of the access networks in Fig.1 GSM, comprises a MSC (138), which reads on "a core network" (see col.6 lines 47-66).

determining a capability of at least one of the access systems (see fig.4, col.9 lines 10-14).

determining the capability is located in a core network (MSC (138), see col.7 lines 40-45 and col.8 lines 10-14).

mobile user equipment contains the means for executing the at least one decision (see col.10 lines 45-46).

Referring to claims 12-14, Byrnes discloses the device is located in access network (see col.7 lines 60-67), radio network controller (see col. 6 lines 24-35) and located in a core network (see fig.1).

Referring to claims 16 and 38, Byrne discloses an access network sends a handover query to the mobile user equipment (see col.8 lines 31-35).

Regarding to claims 17, 21 and 23, Byrne discloses the access network signals a core network before the access network sends the handover query to the mobile user equipment (see col.7 lines 49-55 and col.8 lines 31-35).

Regarding to claim 18, Byrne discloses the core network adds information about a communication or communications which can be supported (see col.7 lines 49-60).

Regarding to claim 20, Byrne discloses the mobile user equipment informs the access network about the communication or the communications which should be handed over to the second access network (see col.8 lines 5-14).

Regarding to claim 22, Byrne discloses the core network decides which communication or communications should be handed over to the second access (see col.8 lines 5-14), MSC can select a network base on user's choice or automatically (see col.3 lines 44-47).

Regarding to claims 24-25, Byrne discloses at least one decision about a communications which are handed over is the case that the mobile user equipment would move between the first access network and the second access network depends on at least one presetting (see col.6 lines 21-35).

Regarding to claim 28, the presettings are stored within at least one of an access network and a core network (see col.6 lines 23-26 and col.6 lines 51-55).

Regarding to claim 30, Byrne discloses the access network and the core network store certain similar predetermined criterion or criteria for system identifications and requirements (see col.6 lines 21-26).

### **Claim Rejections - 35 USC § 103**

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne in view of Hamalainen et al. (US Patent 6,363,252).

Regarding to claims 4 and 7, Byrne fails to disclose at least one access network contains the means for executing the at least one decision.

Hamalainen discloses at least one access network contains the means for executing the at least one decision (see col.10 lines 42-47, fig.6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Byrne with the above teaching of Hamalainen in order to provide reduce traffic loads to core network.

Regarding to claims 5 and 8, the combined of Byrne and Hamalainen disclose a core network that contains the means for executing the at least one decision (Hamalainen, col.2 lines 24-31, and fig.4).

10. Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne in view of Korpela et al. (US Patent 6,167,283).

Referring to claims 33-34, Byrne fails to disclose the presettings are defined and modified by an operator.

Korpela et al. discloses the presettings are defined and modified by an operator (see col.8 lines 38-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Byrne with the above teaching of Korpela in order to provide matching service for user profile.

11. Claims 35-37 and 39, are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne in view of Gillig et al. (US Patent 4,989,230).

Referring to claims 35-37, Byrne fails to disclose at least one of the communication is kept on hold after the handover. Gillig et al. disclose a radiotelephone system comprising a method, wherein a user is notified a second incoming call and allowed to acknowledge the second incoming by putting the first incoming call on hold. While both calls are connected simultaneously, the user has the option to select the first incoming call and put the second incoming call on hold (Col. 6 line 50 through Col. 7 line 8). it would have been obvious to one of ordinary skill in the art at the time the



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invention was made to modify Byrne by implementing the method, as taught by Gillig et al., at the mobile user equipment or the core network, or the combination of both for the purpose of cutting overheads for re-establishing communication with the first access network in a event where at a instant of a completed handover from the first access network to the second access network, the user decides to re-select the first access network.

Referring to claim 39, Bryne and Gillig et al. meet all of the method limitations as claimed. See claim rejections 1, 15, and 35-37.

12. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne in view of Naghshineh, M. et al. (End-to-end QoSprovisioning in Multimedia WirelesslMobile Networks Using an Adaptive Framework, November 1997, IEEE Communications Magazine, pp. 72-8 1).

Referring to claim 29, Byrne fails to disclose the presettings can be different for each mobile user.

Naghshineh, M. et al. disclose a method, wherein presettings such as the quality-ofservice (QOS) requirement of a network comprises varying degrees of network guarantee levels (page 73, left-hand column, lines 63-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Byrne by incorporating the method, as taught by Naghshineh, M. et al, for the purpose of customizing the specific needs of each application.

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13. Claims 26-27 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byrne in view of Acampora et al. [US 5497504].

Referring to claims 26 and 27, Byrne fails to disclose the presettings are transferred to the core network via an initial user equipment message or a setup message. Byrne further fails to disclose a presetting message is sent to the core network after the core network has sent a request to the mobile user equipment.

Acampora et al. disclose a negotiation of connection requirements between a mobile unit and a cell-cluster controller when a call request is initiated. Acampora et al. further disclose the cell-cluster controller, which reads on "a core network", queries the connection type of the call requested by the mobile unit. Upon receiving the connection type information, which reads on "a setup message", from the mobile unit, the cell-cluster controller makes rejection or admittance decision of the requested call based on the internal stored connection requirement table (Col. 7, lines 37-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Byrne by incorporating the method, as taught by Acampora, for the purpose of improving hand-shake protocol between the mobile unit and the core network.

Referring to claim 31, Byrne fails to disclose the presettings can be different for different categories of communications.

Acampora et al. disclose presettings such as the number of guard channels allocated to hand-off calls is different to that of new calls (see col.2 lines 27-37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Byrne by incorporating different presettings for different categories of

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communications, as taught by Acampora, for the purpose of better utilization of limit resources.

Referring to claim 32, Byrne fails to disclose the presettings can be different for different categories of communications.

Acampora et al. disclose hand-off calls are afforded a higher priority of service by the base station over new calls when a system has limited available channels (see Col. 3 lines 37-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Byrne by incorporating priority status for different communication, as taught by Acampora, purpose of better utilization of limit resources.

### Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is (703) 305-3427. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached at (703) 308-6739.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2600 Customer Service Office at (703) 306-0377.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9314 (Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

TN

August 22, 2002



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8/26/02